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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/069,532	03/06/2002	Hiroshi Ishii	020245	4586

38834 7590 11/17/2005

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EXAMINER

MISKA, VIT W

ART UNIT PAPER NUMBER

2841

DATE MAILED: 11/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/069,532	<b>Applicant(s)</b> ISHII ET AL	
	<b>Examiner</b> Vit W. Miska	<b>Art Unit</b> 2841	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-4,7,8,14 and 17-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4,7,8,14,17-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-4, 7, 8, 14 and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dunstan ('110) in view of Koenck ('523) and Chalasani('436). With respect to claims 1-4, the Dunstan reference discloses an electronic device with a timer including rechargeable secondary battery 34, measuring means 74-78 for measuring the state of the battery, memory 60 for storing the measured information and properties of the battery, load 26, controller 30 for controlling driving of the load and functioning as a manager for managing the battery as function of the measured information and time information (see col. 6, lines 40ff), timer 59, time setting functions 62, 63 (see also col. 14, lines 61-62 suggesting other time setting functions), interface 32,36,38 for connecting charger 32 for charging battery 34 based on information from the measuring means, memory and timer (see col. 6, lines 55ff).

2. Regarding the amended recitation of the rechargeable secondary battery providing power to an electric vehicle, Official notice is taken of the use of rechargeable electric batteries to provide power to electric vehicles. It would therefore be obvious to use any or combinations of the battery charging systems of the references in an electric vehicle.

3. The Dunstan patent does not specifically refer to a time displaying function for timer 59. However, one of ordinary skill in the art would be familiar with the conventional practice of providing a display for indicating entered or calculated variables in an electronic device, e.g. an electronic timepiece. Koenck teaches this feature with display 12, 72 for indicating quantities related to battery charging. One skilled in the art thus would provide a display for indicating the various quantities in the Dunstan device, as taught by Koenck, to provide to the user information regarding the charging conditions, including set or measured time periods.

4. Dunstan further does not disclose a time setting function for setting a specified time based on which charging is started. Chalasani et al, however, teaches charging of battery 220 at certain time periods of the day by using timer 260, see col. 4, lines 50ff . One of ordinary skill in the art, having both references would thus be taught to charge battery 34 of Dustan selectively during certain time periods, as done in Chalasani et al,

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to automate the charging process. Regarding claim 14, whether a charge completion time or charge starting time is used as the time input would be an obvious choice for one skilled in the art for accomplishing the same purpose of charging the battery during a selected time period.

5. The display of the starting time and /or the charge time would be an obvious feature in view of the Koenck reference, as noted in the preceding paragraph.

6. Regarding claims 7 and 8, the battery, measuring means and memory may be constructed as an integrated battery unit, attachable to the electric device main body (see col. 5, lines 37ff of Dunstan).

7. With respect to claims 17-20, Dunstan discloses periodically measuring the battery conditions at step 92 of Fig. 6 and described at col. 10, lines 33ff. Further, at col. 13, lines 45ff the patentee indicates that the charging algorithm is controlled according to various battery conditions and properties. The use of timer 55 or 59 for the purpose of providing such periodic signals for measurement and charging of the battery, although not specifically mentioned in Dunstan, would be an obvious extension of this teaching.

8. Applicant's comments have been given careful consideration but have not been found persuasive. Applicant argues that the references do not suggest battery charging "based on information regarding the state of the battery... and the specified time" (p. 11, lines 1-3). However, it is well known to those familiar with this technology that battery charging is generally performed until a battery is fully charged, i.e. a sensed battery condition indicating a fully charged state. Chalasani suggests this at col. 3, lines 10-14:

"The LVD switch 160 is shown coupled to a controller 150 that monitors the status of the battery reserve system 130 and selectively couples the battery 140 to the rectifier 120 and the electrical load 170."

This description of a "prior art controller" 150 corresponds to controller 250 of the disclosed invention having the suggested time of day feature noted above. Thus, it is obvious to one of ordinary skill in the art that controller 250 charges battery 220 based on information from measuring means (sensed battery conditions) and the time of day in the suggested embodiment at col. 4, line 50. The temperature sensing feature of Fig. 2 is thus an additional control condition in addition to the conventional battery charging conditions (full voltage) of the prior art Figure 1. Chalasani et al, therefore, teach the claimed feature of battery charging based on state of the battery and a specified time.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

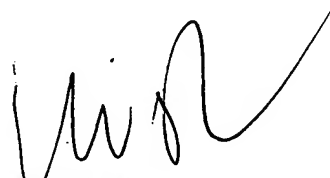
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vit W. Miska whose telephone number is 571-272-2108. The examiner can normally be reached on M-F 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, K. Cuneo can be reached on 571-272-1957. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Vit Miska', with a stylized, flowing script.

Vit Miska  
Primary Examiner

VM  
11/14/2005